

| WEEK     | MONDAY  | TUESDAY | WEDNESDAY   | THURSDAY | FRIDAY  | WEEKEND | SATURDAY  |
|----------|---|---------|---|----------|---|---------|---|
| WEEK - 1 | <b>Class 1</b><br>Design thinking   |         | <b>Class 2</b><br>Autonomous car introduction                             |          | <b>Class 3</b><br>Anaconda tool Installation                              |         | <b>Class 1</b><br>Design thinking<br>Autonomous car introduction<br>Anaconda tool Installation  |
| WEEK - 2 | <b>Class 4</b><br>How do Autonomous cars work?                            |         | <b>Class 5</b><br>Computer vision   |          | <b>Class 6</b><br>Computer vision   |         | <b>Class 2</b><br>How do Autonomous cars work?<br>Computer vision   |
| WEEK - 3 | <b>Class 7</b><br>Deep learning - NN                                      |         | <b>Class 8</b><br>Deep learning - CNN                                     |          | <b>Class 9</b><br>CNN Architecture  |         | <b>Class 3</b><br>Deep learning - NN<br>Deep learning - CNN<br>CNN Architecture   |
| WEEK - 4 | <b>Class 10</b><br>Object detection                                       |         | <b>Class 11</b><br>Object detection                                       |          | <b>Class 12</b><br>Deep learning concepts in Autonomous car               |         | <b>Class 4</b><br>Object detection<br>Deep learning concepts in Autonomous car  |
| WEEK - 5 | <b>Class 13</b><br>Autonomous car Assembling part                         |         | <b>Class 14</b><br>Machine learning in Autonomous Car                     |          | <b>Class 15</b><br>Lane detection<br>Project 1 - Lane Finding             |         | <b>Class 5</b><br>Autonomous car<br>Assembling part<br>Machine learning in Autonomous Car<br>Lane detection<br>Project 1 - Lane Finding |
| WEEK - 6 | <b>Class 16</b><br>Project 2 - Advanced Lane Finding                      |         | <b>Class 17</b><br>Building a Road Sign Classifier in Keras               |          | <b>Class 18</b><br>Building a Road Sign Classifier in Keras               |         | <b>Class 6</b><br>Project 2 - Advanced Lane Finding<br>Building a Road Sign Classifier in Keras   |
| WEEK - 7 | <b>Class 19</b><br>Traffic Sign Classifier                                |         | <b>Class 20</b><br>Project 3 - Traffic Sign Classifier                    |          | <b>Class 21</b><br>Project 3 - Traffic Sign Classifier                    |         | <b>Class 7</b><br>Building a Road Sign Classifier in Keras<br>Project 3 - Traffic Sign Classifier<br>Assignment project review          |
| WEEK - 8 | <b>Class 21</b><br>State Estimation - Linear and Nonlinear Kalman Filters |         | <b>Class 22</b><br>State Estimation - Linear and Nonlinear Kalman Filters |          | <b>Class 23</b><br>State Estimation - Linear and Nonlinear kalman Filters |         | <b>Class 8</b><br>State Estimation - Linear and Nonlinear kalman Filters  |
| WEEK - 9 | <b>Class 24</b><br>GNSS/INS Sensing for                                   |         | <b>Class 25</b><br>GNSS/INS Sensing for                                   |          | <b>Class 26</b><br>LIDAR Sensing  |         | <b>Class 9</b><br>GNSS/INS Sensing for Pose Estimation  |

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|-----------|---|--|--|--|--|--|---|
|           | Pose Estimation   |  | Pose Estimation  |  |  |  | LIDAR Sensing   |
| WEEK - 10 | Class 27<br>LIDAR Sensing   |  | Class 28<br>LIDAR Sensing                                      |  | Class 29<br>An Autonomous Vehicle State Estimator                                  |  | Class 10<br>LIDAR Sensing<br>An Autonomous Vehicle State Estimator  |
| WEEK - 11 | Class 30<br>An Autonomous Vehicle State Estimator                       |  | Class 31<br>Sensors  |  | Class 32<br>Sensors  |  | Class 11<br>An Autonomous Vehicle State Estimator<br>Sensors  |
| WEEK - 12 | Class 33<br>Least Squares   |  | Class 34<br>Least Squares                                      |  | Class 35<br>Least Squares  |  | Class 12<br>Least Squares   |
| WEEK - 13 | Class 36<br>Project 6 - Extended kalman Filter                          |  | Class 37<br>Motion planning - Map: Mapping for planning        |  | Class 38<br>Motion planning - Map: Populating occupancy grids from LIDAR scan data |  | Class 14<br>Project 6 - Extended kalman Filter<br>Motion planning - Map: Mapping for planning<br>Motion planning - Map: Populating occupancy grids from LIDAR scan data             |
| WEEK - 14 | Class 39<br>Motion planning - Mission: Dijkstra's Shortest Path Search  |  | Class 40<br>Motion planning - Mission: A* Shortest path Search |  | Class 41<br>Motion planning - Dynamic object: Motion Prediction                    |  | Class 15<br>Motion planning - Mission: Dijkstra's Shortest Path Search<br>Motion planning - Mission: A* Shortest path Search<br>Motion planning - Dynamic object: Motion Prediction |
| WEEK - 15 | Class 42<br>Motion planning Dynamic object: Map-Aware Motion Prediction |  | Class 43<br>Sensor fusion - Loss of One or More Sensors        |  | Class 44<br>Project 7 - kidnapped vehicle  |  | Class 15<br>Motion planning Dynamic object: Map-Aware Motion Prediction<br>Sensor fusion - Loss of One or More Sensors<br>Project 7 - kidnapped vehicle                             |